

AMENDMENTS TO THE SPECIFICATION

the paragraph beginning at line 4 on page 15
Please replace ~~paragraph [0055] on page 5~~ of the specification as published (Pub. No. *lw 5/18/10*
US 2006/0141450 A1) with the following rewritten paragraph:

~~[0055]~~ The present processes can be performed in an ~~ependorf~~ EPPENDORF™ tube. The *lw 5/18/10*
present processes can be performed in the absence of a precipitation procedure. The present
processes can be performed in the absence of a poisonous agent.

the paragraph beginning at line 5 on page 20
Please replace ~~paragraph [0083] on page 2~~ of the specification as published with the *lw 5/18/10*
following rewritten paragraph:

~~[0083]~~ This method has some main advantages: (1) simple and rapid operation, which only *lw 5/18/10*
takes about 1-3 min; (2) requiring only an ~~ependorf~~ EPPENDORF™ tube, without precipitation;
(3) the obtained products suitable for subsequent biological operations; (4) easy to realize automatic
operation; (5) safe operation without using poisonous agents; (6) operation at room temperature; (7)
easy preservation of the magnetic micro-beads, which has insignificant influence on the separation
effect.

the paragraph beginning at line 1 on page 21
Please replace ~~paragraph [0093] on page 7~~ of the specification as published with the *lw 5/18/10*
following rewritten paragraph:

~~[0093]~~ This method has some main advantages: (1) simple and rapid operation, which only *lw 5/18/10*
takes about 20 min; (2) requiring only an ~~ependorf~~ EPPENDORF™ tube, without precipitation; (3)
the obtained products suitable for subsequent biological operations; (4) easy to realize automatic
operation; (5) safe operation without poisonous using agents; (6) operation at room temperature; (7)
easy preservation of the magnetic micro-beads, which has insignificant influence on the separation
effect.

the paragraph beginning at line 25 on page 21
Please replace ~~paragraph [0104] on page 7~~ of the specification as published with the *lw 5/18/10*
following rewritten paragraph:

~~[0104]~~ This method has some main advantages: (1) simple and rapid operation, which only *lw 5/18/10*
takes about 20 min; (2) requiring only an ~~ependorf~~ EPPENDORF™ tube, without precipitation; (3)
the obtained products suitable for subsequent biological operations; (4) easy to realize automatic
operation; (5) safe operation without using poisonous agents; (6) operation at room temperature; (7)
easy preservation of the magnetic micro-beads, which has insignificant influence on the separation
effect.

the paragraph beginning at line 7 on page 22
Please replace ~~paragraph [0105] bridging pages 7 and 8~~ of the specification as *lw 5/18/10*
published with the following rewritten paragraph:

~~[0105]~~ Human whole blood from healthy donors was anticoagulated with ACD. The *lw 5/18/10*
procedure of isolation of leukocytes is as follows. To a 1.5 mL ~~Eppendorf™~~ EPPENDORF™ tube
containing 30 μL of 15 $\mu\text{g}/\mu\text{L}$ magnetic micro-beads suspended in Tris-EDTA buffer (pH 6.0) was
added 300 μL anticoagulated blood. The mixture was agitated gently by vortexing for 15 s and
incubated at room temperature for 3 min. Then the micro-beads-leukocytes conjugates were
immobilized on a magnetic stand and the supernatant was discarded. The magnetic micro-beads-
DNA conjugates were washed twice with 100 μL 70% ethanol solution. If the intact structure of the
leukocytes was to be kept, the PBS buffer (pH 7.4) instead of ethanol was used to wash the
microbeads. After thoroughly evaporating ethanol under room temperature, 50 μL solution of Tris-
EDTA-Tween20 (pH 7.0, 10 $\text{mmol}\cdot\text{L}^{-1}$ Tris-HCl, 1 $\text{mmol}\cdot\text{L}^{-1}$ EDTA and Tween 20: 0.1%) were
added into the conjugates and it was incubated at room temperature for 10 min, to elute the
leukocytes. Then the magnetic micro-beads were separated through a magnetic stand. The eluant
was collected and the obtained leukocytes can be used to extract big biological molecules (such as
nucleic acid and protein). The whole process takes only 15 min.

the paragraph beginning at line 5 on page 23
Please replace ~~paragraph [0107] on page 8~~ of the specification as published with the following rewritten paragraph:

lw 5/18/10

~~[0107]~~ The samples were cultured *E. coli* without plasmid. The procedure is as follows. To a 1.5 mL ~~Eppendorf tube~~ EPPENDORF™ tube containing 50 μL of 15 $\mu\text{g}/\mu\text{L}$ magnetic micro-beads suspended in Tris-EDTA buffer (pH 6.0) was added 300 μL cell culture. The mixture was agitated gently by vortexing for 15 s and incubated at room temperature for 3 min. Then the micro-beads-cells conjugates were immobilized on a magnetic stand and the supernatant was discarded. The cells were selectively adsorbed on the surface of the micro-beads.

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the paragraph beginning at line 26 on page 23
Please replace ~~paragraph [0109] on page 8~~ of the specification as published with the following rewritten paragraph:

lw 5/18/10

~~[0109]~~ Saliva was donated by the healthy donors. The procedure is as follows. To a 1.5 mL ~~Eppendorf tube~~ EPPENDORF™ tube containing 30 μL of 15 $\mu\text{g}/\mu\text{L}$ magnetic micro-beads suspended in Tris-EDTA buffer (pH 6.0) were added 300 μL cell culture. The mixture was agitated gently by vortexing for 15 s and incubated at room temperature for 3 min. Then the micro-beads-cells conjugates were immobilized on a magnetic stand and the supernatant was discarded. The cells were selectively adsorbed on the surface of the micro-beads.

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the paragraph beginning at line 24 on page 24
Please replace ~~paragraph [0112] bridging pages 8 and 9~~ of the specification as published with the following rewritten paragraph:

lw 5/18/10

~~[0112]~~ The procedure is as follows. Three hundred (300) μL broth bouillon 2xTY containing M13 bacteriophage is centrifuged for 5 min. The supernatant is added into a 1.5 mL ~~Eppendorf™~~ EPPENDORF™ tube containing 30 μL of 15 $\mu\text{g}/\mu\text{L}$ magnetic micro-beads with the diameter of 200 nm suspended in Tris-EDTA buffer (pH 6.0). Then 20% polyethylene glycol (NaCl: 2.5M) with 0.2 volume of the mixture is added into the mixture. The mixture is agitated gently by vortexing for 15 s and incubated at room temperature for 3 min. Then the micro-beads-bacteriophage conjugates are immobilized on a magnetic stand and the supernatant is discarded.

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The paragraph beginning at line 16 on page 25
Please replace ~~paragraph [0114] on page 9~~ of the specification as published with the following rewritten paragraph:

lw 5/18/10

~~[0114]~~ The procedure is as follows. Three hundred (300) μ L serum is mixed with bacillus influenza. The mixture is added into a 1.5 mL Eppendorf tube EPPENDORF™ tube containing 30 μ L of 15 μ g/ μ L magnetic micro-beads with the diameter of 200 nm suspended in Tris-EDTA buffer (pH 6.0). Then 20% polyethylene glycol (NaCl: 2.5M) with 0.2 volume of the mixture is added. The mixture is agitated gently by vortexing for 15 s and incubated at room temperature for 3 min. Then the micro-beads-virus conjugates are immobilized on a magnetic stand and the supernatant is discarded.

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